

Cleveland State University
EngagedScholarship@CSU



Cleveland State Law Review

Law Journals

1998

Year 2000 Hurdles and Controversies

Michael D. Schindler

Follow this and additional works at: <https://engagedscholarship.csuohio.edu/clevstlrev>



Part of the [Other Law Commons](#), and the [Science and Technology Law Commons](#)

How does access to this work benefit you? Let us know!

Recommended Citation

Note, Year 2000 Hurdles and Controversies, 46 Clev. St. L. Rev. 91 (1998)

This Note is brought to you for free and open access by the Law Journals at EngagedScholarship@CSU. It has been accepted for inclusion in Cleveland State Law Review by an authorized editor of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.

YEAR 2000 HURDLES AND CONTROVERSIES

I.	INTRODUCTION	91
II.	BACKGROUND OF THE YEAR 2000 PROBLEM	93
	A. <i>Why the Problem Exists</i>	93
	B. <i>Where to Find the Millennium Bug, How to Fix It, and What It Will Cost</i>	94
	C. <i>No Silver Bullet Solution</i>	97
	D. <i>Embedded Chips</i>	98
III.	YEAR 2000 LITIGATION	99
	A. <i>Produce Palace International v. TEC-America Corp.</i>	99
	B. <i>Atlaz International Ltd. v. Software Bus. Technologies, Inc.</i>	100
	C. <i>Potential Legal Liability</i>	101
IV.	LEGAL AUDIT	102
V.	UNIFORM COMMERCIAL CODE	105
	A. <i>Choice of Law</i>	105
	B. <i>Statute of Limitations</i>	106
VI.	POTENTIALLY LIABLE PARTIES	106
	A. <i>Vendor Liability</i>	106
	B. <i>Product Manufacturer Liability</i>	111
	C. <i>Director and Officer Liability</i>	113
VII.	DISCLOSURE ISSUES	117
VIII.	YEAR 2000 INSURANCE COVERAGE	119
	A. <i>Conventional Policies</i>	120
	B. <i>Year 2000 Policies</i>	121
IX.	FAIR USE AND COPYRIGHT ISSUES	122
X.	CONCLUSION	126

I. INTRODUCTION

The "Year 2000," "Y2K," or "Millennium Bug" is a computer problem which plagues the entire world. It poses far-reaching legal ramifications. As the Year 2000 approaches, it brings with it one of the biggest challenges the business and legal world has ever faced. Virtually every business, government agency and military department will have to undergo Year 2000 conversion.

At the stroke of midnight on December 31, 1999, computer systems which rely upon dates to perform various functions will be obsolete and will result in unpredictable miscalculations. The problem exists because computers record dates using six digits: mm/dd/yy, two digits for the month, two digits for the

day, and two digits for the year.¹ To illustrate this Year 2000 problem, suppose you are on a long distance phone call at five minutes to midnight on December 31, 1999, and the phone call lasts 10 minutes. When your long distance phone bill arrives, you will either be charged for a ten-minute call or for 100 years plus five minutes if the phone company is not Year 2000 compliant.² At the turn of the millennium, computers will have no way of distinguishing between 1900 and 2000.³ This is the core of the Year 2000 problem; most computers will think 00 means 1900.⁴

The Year 2000 problem requires changing existing computer technology so that the calculation, storage and display of dates after 1999 will be accurate and reliable. Year 2000 problems may cause electronically held stocks and checking accounts to have errors or to be erased.⁵ Insurance companies showing a policy effective through 2003 will now show the policy having expired in 1903.⁶ Accounting software will use the wrong dates for invoices or payment notices.⁷ Computer failures in a hospital's emergency room or intensive care unit could compromise patient care and hospital operations.⁸ Manufacturing could grind to a halt and suppliers may be unable to deliver products.⁹ An individual who

¹Peter de Jager, *Doomsday*, COMPUTERWORLD, Sept. 6, 1993, at 105.

²Becoming Year 2000 compliant with respect to information technology means: [T]hat the information technology accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

48 C.F.R. 39.002 (1997).

³MICHAEL S. HYATT, *THE MILLENNIUM BUG: HOW TO SURVIVE THE COMING CHAOS* 7 (1998); Andrea Rock & Tripp Reynolds, *The Year 2000 Bug*, MONEY, Feb. 1998, at 49, 50; Neil Randall, *Welcome to the Millennium*, PC MAG., Sept. 23, 1997, at 229.

⁴When the Year 2000 arrives, computer clocks will register in one of four ways: 1) 0000 (i.e., 2000 years earlier), 2) 1900, 3) 1980 (due to early PC system design), and 4) 2000. In many cases, the outcomes are unknown and inconsistent. Lynn J. McKell & Marshall Romney, *The Year 2000 Problem*, CPA J., June 1997, at 16, 18.

⁵Leah Nathans Spiro, *Panic in the Year Zero Zero*, BUS. WK., Aug. 12, 1996, at 47.

⁶Roger Lowenstein, *The Year 2000 and the CEOs' Big Secret*, WALL ST. J., July 25, 1996, at C1.

⁷Paul J. Schumacher, *The Year 2000 Problem: Back to the Future* (visited Aug. 5, 1998) <<http://www.gsfn.com/2000/index.htm>>.

⁸John Morrissey & Scott Hensley, *The Countdown Continues: Hospitals and Healthcare Systems are Racing the Clock to Determine the Severity of the Year-2000 Bug Infestation*, MOD. HEALTHCARE, Aug. 10, 1998, at 46, 50.

⁹Shane McLaughlin, *Law and Disorder in the Year 2000*, INC. ONLINE (Nov. 18, 1997) <<http://www.inc.com/extra/special/11189721.html>>.

receives his driver's license will have an expiration date of 1902, because Department of Motor Vehicle computers cannot handle dates after 1999.¹⁰

Computers will crash, inventory will disappear and lawsuits will arise. Robert Austrian, a Senior Software Analyst at Nationsbank Montgomery Securities, testified before the Senate Banking Committee and stated: "we believe that nearly all sectors of the business community are vulnerable to the Year 2000 problem. Some are more vulnerable than others, including those with the most date-intensive applications. These include banking, investments, insurance, and manufacturing industries. . . ."¹¹

This article examines the hurdles and controversies of the Year 2000 problem. First, some background on the "Millennium Bug" explains the nature of the problem, how to fix it, and what it will cost. Next, the article discusses recent Year 2000 litigation. Then the article suggests that companies should implement a legal strategy to avoid potential liability by performing a legal audit of the Year 2000 problem. Additionally, the UCC and case law analysis are used to explain possible causes of action and who the plaintiffs and defendants will be. Other key legal issues analyzed are SEC disclosure requirements, insurance coverage and copyrights.

An acceptable Year 2000 remediation program will protect potentially liable parties. The Year 2000 crisis should not be a problem for prudent companies that spend the time and money on Year 2000 remediation efforts. The best legal advice is to take action now and fix the problems.

With perseverance and lots of money, the Year 2000 problem can be solved in time. However, if not corrected in time, the legal community and the judicial system will face many legal ramifications, some of which are not yet even realized.

II. BACKGROUND OF THE YEAR 2000 PROBLEM

A. Why the Problem Exists

In the early days of computers (1960's and 70's), memory space was very expensive.¹² One way to store data was by using a punch card known as the Hollerith card.¹³ Holes were punched into the Hollerith card according to a set of patterns. By reading these cards with a beam of light, one could then store and retrieve information. These eighty column punch cards had very limited

¹⁰BRYCE RAGLAND, *THE YEAR 2000 PROBLEM SOLVER* 98 (1997).

¹¹*Are you ready for the Year 2000?*, BUS. MONITOR, Dec. 11, 1997, available in 1997 WL 16430092.

¹²Peter de Jager, *Computers on Strike: You've Got To Be Kidding!*, 1 YEAR/2000 J. at 34, 35 (1997).

¹³*Id.*

memory and storage capacity and thus every effort was made to compress data to fit onto the card.¹⁴

Since Hollerith cards could only hold eighty characters of information, most programmers ignored the two-century digits and used only the last two-year digits in the date field.¹⁵ For example, "1970" was entered as "70" freeing costly storage space for better uses. This data-saving technique was reasonable because it would be decades before the century digits would be needed in calculations and there was ample opportunity for future software versions to adjust the system.¹⁶

Most programmers never expected their systems, including the two-digit space saver, to survive into the 21st century.¹⁷ However, as companies developed new computer systems and software, there was a need to maintain compatibility with previous systems already in existence and the two-digit year format remained constant in the newer programs.¹⁸

B. Where to Find the Millennium Bug, How to Fix It, and What It Will Cost

The location of date codes in computer software is often unknown.¹⁹ Programmers must go into the computer software to find and test every line of code. Finding all relevant date codes is an extremely difficult task because many original programs were written in the old COBOL language, which is often undocumented.²⁰

The solution is not as simple as adding two digits to the century field. The problem is further complicated by the millions of lines of code which must be checked, the various languages used,²¹ the shortage of time, lack of programmers and the fact that ninety percent of the world's computers are

¹⁴*Id.*

¹⁵MINDA ZETLIN, *THE COMPUTER TIME BOMB* 93 (1998).

¹⁶Ned Dana, *Millennium Bug May Bite the Unprepared in the Wallet*, *PACIFIC BUS. NEWS*, Sept. 22, 1997, at 11.

¹⁷WILLIAM ULRICH & IAN HAYES, *THE YEAR 2000 SOFTWARE CRISIS: CHALLENGE OF THE CENTURY 5* (1997); Michael Gerner, *Why Has the Year/2000 Problem Happened?*, 1 *YEAR/2000 J.* 30 (1997).

¹⁸Gerner, *supra* note 17, at 30.

¹⁹William H. Mills, *Does Your Accounting Software Pass the Year 2000 Compliance Test?*, *MGMT. ACCT.*, Oct. 1997, at 28. This source lists nine places where the Year 2000 problem can be found in software: 1) Mini/Mainframes, 2) PC hardware, 3) COBOL, FORTRAN, RPG3, or similar software, 4) Propriety software, 5) No source code, 6) Data entry screens, 7) Output reports, 8) Human errors, and in 9) Business forms.

²⁰RAGLAND, *supra* note 10, at 26; *see also* PETER DE JAGER & RICHARD BERGEON, *MANAGING 00: SURVIVING THE YEAR 2000 COMPUTING CRISIS* 7-9 (1997).

²¹There is an estimated 181 billion lines of code in today's computer systems, almost 65 billion of which are COBOL. Assembly, C++, Basic, PASCAL, FORTRAN, JOVIAL, and C are among the many other languages containing billions of lines of code infected with the millennium bug. RAGLAND, *supra* note 10, at 37.

affected.²² In addition, many of the programmers who wrote the original software have retired. Consequently, many retirees are being brought back into the workforce and demanding huge salaries.²³

An entire industry has developed around the Year 2000 problem, encompassing dozens of companies specializing in finding and eliminating the millennium bug. Training courses have sprung up around the country to train programmers on COBOL and other software infected with the millennium bug.²⁴ Colleges in Maryland are giving away four-year free tuition scholarships to students who commit to two-year salaried positions debugging computers for state companies and agencies.²⁵

If a company misses even one line of date sensitive code, a ripple effect could spread throughout the system causing wrong assessments and decisions. It is not unusual for a company to have millions of lines of code.²⁶ As a result, most major companies now have Year 2000 task forces whose sole function is to remedy the Year 2000 problem.²⁷

Fixing the infected software entails a detailed plan involving all aspects of a company. A basic outline for a company may include five steps: awareness, assessment, renovation, validation and implementation.²⁸

²²Angela Judd, *Year 2000 Legal Issues*, DM REVIEW, Oct. 1997, at 44; Michael Gerner, *Why has the Year/2000 Problem Happened?*, 1 YEAR/2000 J. 30 (1997).

²³Lee Ann Gjertsen, *Time is Running Out on the Year 2000 Crisis*, NAT'L UNDERWRITER LIFE & HEALTH-FIN. SERVICES ED., May 12, 1997, at 2.

²⁴Omaha businesses have started a COBOL boot camp designed to teach students to become a new source of programmers for the Year 2000 work force. After seven months of intensive training in programming logic, CICS and other mainframe skills, the students would be ready to enter the workforce. Their projects include reprogramming embedded software to checking server software for Year 2000 glitches. Julia King, *Year 2000 Boot Camp*, COMPUTERWORLD, Jan. 6, 1997, at 95. The University of California Extension at Santa Cruz (UCSC) also offers a course designed to retrain older COBOL programmers who need to refresh their skills to enter the Year 2000 programming market. Mathew Schwartz, *Staffing the Millennium*, SOFTWARE MAG., Oct. 1997, at 51, 53.

²⁵Douglas Stanglin & Shaheena Ahmad, *Year 2000 Time Bomb: Prevailing Myths Deter Managers from Debugging Computers*, U.S. NEWS & WORLD REP., June 8, 1998, at 45, 48.

²⁶Year 2000 expert, Capers Jones, estimates that more than 180 billion lines of code need to be corrected in 35 million programs and in more than 1 million systems. Sarah Goddard, *Year 2000 Problem May Cost Trillions*, BUS. INS., Oct. 6, 1997, available in 1997 WL 8295628.

²⁷Merrill Lynch has such a task force consisting of 80 people. The Y2K team works in shifts, 24 hours a day, 7 days a week. The total cost to fix Merrill Lynch's computer systems is estimated at \$200 million. Steven Levy & Katie Hafner, *The Day the World Shuts Down*, NEWSWEEK, June 2, 1997, at 53, 57.

²⁸RAGLAND, *supra* note 10, at 53 (detailing the necessary steps a company should go through to search out and destroy the millennium bug). See also William H. Mills, *Does Your Accounting Software Pass the Year 2000 Compliance Test?*, MGMT. ACCT., Oct. 1997, at 28, 30-32 (listing a basic outline for testing software: 1) Developing test data, 2) Test

A company must decide whether it will update, upgrade or replace its existing software. Updating entails adding Year 2000 capabilities to the current system by using a "patch" issued by the software vendor designed to correct non-compliant versions of software or by reprogramming all the date fields to recognize the Year 2000.²⁹ Upgrading means purchasing a newer release of the same product which is Year 2000 compliant.³⁰ Software should be replaced with entirely new software when new capabilities are needed or when the company plans to grow.³¹

The Year 2000 crisis will cost companies an estimated \$300 to \$600 billion worldwide, with the U.S. paying roughly one-third of the cost.³² The airline industry estimates it will spend \$2 billion; Federal Express will spend \$500 million; the federal government will spend \$2.8 billion; and GTE is estimated to spend \$150 million with as many as 1,000 people working on the problem.³³ Another one trillion dollars is expected to be spent in litigation.³⁴ Capers Jones, chairman of Software Productivity Research Inc. in Burlington, Massachusetts, has predicted that the average Fortune 500 company that does not become Year 2000 compliant in time can anticipate paying \$100 million in litigation costs.³⁵

One reason the costs are astronomical is because many systems need to be taken off line to be corrected.³⁶ Many departments must cease operation while their computers are being fixed, resulting in lost productivity and wages.

1999 going forward, 3) Test 2000 going forward, 4) Year 2000 operation).

²⁹WILLIAM ULRICH & IAN HAYES, *THE YEAR 2000 SOFTWARE CRISIS: CHALLENGE OF THE CENTURY* 48, 81 (1997).

³⁰*Id.* at 85.

³¹*Id.* at 47, 80.

³²Estimated by the Gartner Group, a Connecticut based information technology research company. Clyde Mitchell, *Implications of the 'Year 2000 Problem'*, N.Y.L.J., Apr. 16, 1997, at 3.

³³Vito C. Peraino, *Year 2000 Problem: Is Your Company Exposed?*, MGMT. ACCT., Oct. 1997, at 38, 40.

³⁴Steven Hock, head of the Year 2000 team for Thelen, Marrin, Johnson, & Bridges in San Francisco, reported that U.S. companies and individuals could face up to \$1 trillion in liability and legal costs. Sougata Mukherjee, *Businesses Suing Over Year 2000 Computer Bug*, JACKSONVILLE BUS. J., Nov. 7, 1997, at 4; Ann Coffou, Managing Director of Giga Information Group, testified before the U.S. House of Representatives on March 20, 1997 indicating that for every dollar spent fixing the Year 2000 problem, \$2 to \$3 will be spent in litigation with the legal costs near or exceeding \$1 trillion. *Year 2000 Risks: What Are the Consequences of Information Technology Failure? Joint Hearing Before the Subcomm. on Tech. of the Comm. on Science and the Subcomm. on Gov't Mgmt., Info., and Tech. of the Comm. on Gov't Reform and Oversight*, 105th Cong. 17 (1997) [hereinafter *Hearings*].

³⁵*Hearings*, *supra* note 34, at 20; Thomas Hoffman, *Year 2000 Problem Comes Bundled With Legacy of Potential Litigation*, COMPUTERWORLD, Oct. 14, 1996, at 88.

³⁶Vito C. Peraino, *Corporate Directors' Liability and the Year 2000 Problem*, SEC. & COMM. LITIG. REP., Mar. 12, 1997, at 3.

Another factor resulting in added expense is the difficulty of searching millions of lines of code for a possible date conflict. Estimates place the cost to fix each line between \$1.00 and \$2.00.³⁷ With the critical shortage of project managers and programmers, the cost for their services is expected to skyrocket, with many programmers earning in excess of \$100,000 per year.³⁸

C. No Silver Bullet Solution

Many companies affected by the millennium bug are hoping for a magical solution or "silver bullet" to save the day. Unfortunately, given the multitude of uses for dates and the many different software languages, programs and computer systems available, one simple solution will not fix all the software applications on the market. In fact, there are over 100 software tools available to assist companies in correcting the Year 2000 problem.³⁹

Because there are no universal programming standards, each line of code must be searched individually to pinpoint the date field before corrections can be implemented.⁴⁰ The date field is not located in the same place, nor is it labeled the same name, in all programs.⁴¹ Inconsistencies like these prevent a quick fix approach. It is thus not possible to develop a tool to find all the affected lines of code. Correcting the date glitch is a time consuming hurdle.

The Federal Aviation Administration (FAA) has a special problem because its systems are very old by computer standards.⁴² IBM indicated that the FAA computers were so old, no one at IBM knew how to check them for Year 2000 problems.⁴³ Instead, IBM said the computers should be replaced.⁴⁴ Jane Garvey, head of the FAA, acknowledged in her testimony before Congress on

³⁷Leon A. Kappelman et al., *The Cost of Compliance*, SOFTWARE MAG., Oct. 1997, at 14.

³⁸Douglas Stanglin & Shaheena Ahmad, *Year 2000 Time Bomb: Prevailing Myths Deter Managers From Debugging Computers*, U.S. NEWS & WORLD REP., June 8, 1998, at 48; C. Lawrence Meador, *Year 2000 Computer Crisis Looms for Insurers*, NAT'L UNDERWRITER LIFE & HEALTH-FIN. SERVICES ED., July 8, 1996, at 12.

³⁹John S. McCright, *Simulating Y2K Risks*, PC WEEK, Sept. 29, 1997, at 22. For example, Thinking Tools Inc. produces software called Think 2000 which will assist managers in prioritizing the steps they need to take to decrease the financial impact due to Year 2000 system failures. Think 2000 simulates how each aspect of the company will perform as systems begin to crash as the Year 2000 draws near. The software also provides a paper trail to prove companies were taking steps to mitigate the effects of the Year 2000 problem should litigation arise from system failures. *Id.*; see generally *The Year 2000 Directory*, SOFTWARE MAG., Oct. 1997, at 71 (listing the many different software companies providing software designed to fix the Year 2000 problem).

⁴⁰DE JAGER & BERGEON, *supra* note 20, at 3.

⁴¹*Id.* at 7-9.

⁴²Matthew Wald, *F.A.A. Faulted on Fixing Year 2000 Computer Glitch*, N.Y. TIMES, Feb. 4, 1998, at A18.

⁴³*Id.*

⁴⁴*Id.*

February 4, 1998, that there are no guarantees that the Year 2000 computer problem will be solved in time.⁴⁵ The reason is that air traffic systems have more than 23 million lines of computer code written in 50 different computer languages on 250 different systems.⁴⁶ The FAA has a November 1999 deadline to finish all the work.⁴⁷ The deadline, however, is already too close to properly test all computer systems before the millennium.⁴⁸

If the Year 2000 problem is not corrected, the consequences would include grounded or delayed flights, increased airline costs, customer inconvenience and degraded safety.⁴⁹ Bill Bradley of the CBS Evening News announced, "Well, I can tell you right now where you won't find me that night. I won't set foot in an elevator. And you couldn't pay me to fly in an airplane."⁵⁰ Ray Long, the FAA's Year 2000 project director, states that processes are in place to have the Year 2000 problem fixed by June 30, 1999, leaving ample time for testing.⁵¹ To show his confidence in the FAA, Mr. Long plans on flying coast-to-coast at midnight on December 31, 1999.⁵²

D. Embedded Chips

The Year 2000 problem also affects virtually every kind of hardware. Vito Peraino, head of the Year 2000 team at the law firm of Hancock, Rother & Bunshoft in Los Angeles, stated that "one of the least publicized and most legally significant aspects of the Year 2000 problem is the [e]mbedded chip problem."⁵³ Embedded chips are small-programmed chips that are incorporated into automated devices which produce a data function.⁵⁴ Many embedded microchips that perform date and time functions are not designed to function into the Year 2000.⁵⁵ These chips are found in elevators, traffic lights, telephone systems, coffee machines, bank vaults and in ATM machines. Ann Coffou, managing director and Year 2000 specialist at Giga Information Group,

⁴⁵FAA Lagging in Year 2000 Changeover: Lawmaker Fears Agency Won't Alter Computers, CHL. TRIB., Feb. 5, 1998, at 7.

⁴⁶Rajiv Chandrasekaran & Stephen Barr, *FAA Lags in Fixing Crucial Systems*, WASH. POST, Feb. 5, 1998, at A15.

⁴⁷F.A.A. Head Concedes Computer Problem, N.Y. TIMES, Feb. 5, 1998, at A16.

⁴⁸*Id.*

⁴⁹Double-zero for the FAA, ST. PETERSBURG TIMES, Feb. 6, 1998, at A18.

⁵⁰CBS Evening News: Year 2000 Approaching Fast and Year 2000 Computer Problem Not Yet Fixed (CBS television broadcast, Dec. 28, 1997).

⁵¹Frank Tiboni, *FAA Faces Congressional Criticism on Status of Agency's Date Code Fixes*, GOV'T COMPUTER NEWS, Aug. 24, 1998, at 70, available in 1998 WL 10424635.

⁵²*Id.*

⁵³Hearings, *supra* note 34, at 31 (statement of Vito Peraino).

⁵⁴Peraino, *supra* note 33, at 38, 40.

⁵⁵Hearings, *supra* note 34, at 11 (statement of Ann Coffou).

believes that "anything with an electrical component should be suspect. The rule should be guilty until proven innocent."⁵⁶

Billions of embedded chips will be in use on January 1, 2000, millions of which must be tested and replaced.⁵⁷ With hundreds of brands and models of products on the market, it will be nearly impossible to test and replace each automated device for a defective chip.

Product liability suits will likely arise as many products controlled by embedded chips will fail in the Year 2000. For example, if an elevator failed and caused injury or death, there could be claims for negligence against the building owner, the maker of the elevator, or the elevator maintenance company. Already, a manufacturer avoided liability because he recalled a heart defibrillator since the built-in safety mechanism would shut down if it had not been recently serviced, as it interpreted 2000 as 1900.⁵⁸

III. YEAR 2000 LITIGATION

A. *Produce Palace International v. TEC-America Corp.*

The flood of litigation that has been anticipated with the millennium bug has already started. Many credit card companies cannot issue credit cards with a Year 2000 expiration date.⁵⁹ In what is seen as the first Year 2000 lawsuit, Produce Palace International, a Michigan produce retailer, filed suit on June 12, 1997, against its technology providers for lost sales due to cash register failures.⁶⁰ Produce Palace sued All-American Cash Register, a subsidiary of TEC-America Corp.,⁶¹ because its sales terminals could not handle credit cards

⁵⁶*Id.*

⁵⁷Andrea Rock & Tripp Reynolds, *The Year 2000 Bug*, MONEY, Feb. 1998, at 49, 50. Embedded chips must be replaced because they cannot be reprogrammed. *Id.*

⁵⁸*Please Panic Early*, THE ECONOMIST, Oct. 4, 1997, at 25, 29.

⁵⁹Visa has stopped producing credit cards with expiration dates beyond 1999 and MasterCard has warned member banks not to release credit cards that would expire in 2000 or beyond. See Wylie Wong, *Grocer Registers Year 2000 Suit Believed to Be First of its Kind, but not the Last*, COMPUTERWORLD, Aug. 18, 1997, at A6.

⁶⁰*Produce Palace Int'l v. TEC-America Corp.*, No. 97-3330-CK (Mich. Cir. Ct., Macomb Cty., filed June 12, 1997). In a similar matter, customers of about 30 Cleveland, Ohio Stop-n-Shops operated by Riser were unable to use their ATM cards to pay for their groceries if their cards had expiration dates after 1999. The cash registers ignored the first two-century dates and only read the 00, interpreting it to mean the cards had expired in 1900. Chuck Melvin, *Racing Against the Year 2000*, CLEV. PLAIN DEALER, Feb. 2, 1997, at H1. Also, at the Market Day grocery store in Washington, D.C., signs alert customers that the cash registers cannot process charges if the credit card expires in 2000. Rajiv Chandrasekaran, *Computer Flaw Already Bars Some Credit Card Processing*, WASH. POST, Jan. 2, 1998, at A1.

⁶¹TEC-America, based in Atlanta, developed the point-of sale technology and All-American Cash Register, based in Michigan, sold and serviced the system. *Complaint Alleges Computer System Can't Handle Year 2000 Transactions*, COMP. & ONLINE INDUS. LITIG. REP., Aug. 19, 1997.

which expired after 1999.⁶² All ten of the store's cash registers would lock-up and shut down whenever a customer tried to pay using a credit card with an expiration date in the Year 2000 or beyond. The plaintiff's complaint alleged breach of warranty, breach of contract, revocation, violation of the Magnusson-Moss Warranty Act, breach of the duty of good faith, negligent repair, misrepresentation and violation of the Michigan Consumer Protection Act.⁶³ Monetary damages of at least \$10,000 are sought along with statutory damages, interest and attorney's fees.⁶⁴

Produce Palace lost thousands of dollars and valuable customer goodwill because irate customers left carts full of merchandise, refusing to wait in the long lines when a shutdown occurred. TEC-America has denied blame for the shutdowns and shifts the responsibility to the credit card industry for not establishing a data-swapping format that would recognize the Year 2000.⁶⁵ On September 14, 1998, a settlement for the first Year 2000 lawsuit was reached.⁶⁶ Produce Palace accepted \$250,000 in a settlement offer from TEC-America.⁶⁷ Brian Parker, the attorney for Produce Palace, believes that the settlement offer will serve as a precedent in other Year 2000 lawsuits.⁶⁸

B. Atlaz International Ltd. v. Software Business Technologies, Inc.

In the first class-action lawsuit regarding the Year 2000 problem, a New York computer hardware company has filed suit in a California state court alleging a software company failed to provide free Year 2000 compliance upgrades.⁶⁹ Atlaz International is suing Software Business Technologies (SBT) for breach of warranty, breach of contract, misrepresentation and fraudulent and unfair

⁶²Amy Mindell, *Produce Store Sues Over Infestation by 2000 Bug*, CRAIN'S DET. BUS., Sept. 15, 1997, at 13. The store owners, Mark Yarsike and Sam Katz, state that people have offered to fix the cash registers for \$20,000 but they were not willing to pay for the repairs. The machines were bought two years ago for \$150,000 and were supposed to carry the store through the Year 2000; however, the machines have been down for more than 100 of the first 500 days after they were purchased. *Id.*

⁶³*Trade Regulation—Warranties: Plaintiff in First Year 2000 Lawsuit Rejects Mediator's Award of \$260,000*, 66 U.S.L.W. 2776 (June 6, 1998).

⁶⁴*Id.*

⁶⁵Mindell, *supra* note 62.

⁶⁶Bruce Caldwell, *First Year 2000 Case Settled*, INFO. W., Sept. 21, 1998, at 188.

⁶⁷*Id.* The defective cash registers are being returned to TEC America as part of the settlement offer.

⁶⁸*Id.*

⁶⁹Atlaz Int'l Ltd. v. Software Bus. Tech. Inc., No. 172539 (Cal. Super. Ct. filed Dec. 2, 1997); *see also* Year 2000 Class Action Filed in California, COMPUTER L. STRATEGIST, Dec. 1997, at 8.

business practices.⁷⁰ The class action plaintiffs include users who purchased SBT's software prior to March 1, 1997.⁷¹

In 1995, Atlaz bought a software package called "SBT Pro Series." Atlaz claims versions of SBT's Pro Series software, sold prior to March 1997, did not recognize dates after 2000, which constitutes a breach of the five-year express warranty given to the plaintiffs that the software would operate within the given specifications.⁷² A new version of the software came out in March 1997, which does recognize dates after 2000.⁷³

Atlaz alleges that SBT breached its warranty agreement by improperly requiring customers to pay substantial fees to purchase upgrades to fix the date problem, while other software companies are correcting the problems for free.⁷⁴ Upgrading to SBT's new version of software is estimated to cost customers more than \$50 million.⁷⁵ SBT responds that the Year 2000 problem is outside the scope of the warranty in its software license agreement.⁷⁶ In addition, the upgrades offered by SBT contain other features besides the Year 2000 fix and the upgrade cost reflects the new features.⁷⁷

C. Potential Legal Liability

Lawyers will face tremendous litigation involving everyone from pharmacists to bankers, because millions of computer programs will shut down. Potential causes of action will include copyright infringement claims, shareholder suits, insurance coverage claims, breach of contract and UCC actions, tort and fraud claims, and suits by state and federal governments and their agencies. Year 2000 expert Ken Orr of the Ken Orr Institute stated, "this is an area of the problem that's going to be bigger than anyone ever expected. In

⁷⁰Mark Grossman, *Year 2000 Suits are Upon Us*, LEGAL TIMES, July 13, 1998, at 43.

⁷¹*Year 2000 Class Action Filed in California*, COMPUTER L. STRATEGIST, Dec. 1997, at 8.

⁷²Kerry A. Kearney, *With Problems and Lawsuits Looming, Companies Must Make Compliance Their Top Priority*, N.Y.L.J., July 13, 1998, at S9.

⁷³*Year 2000 Class Action Filed in California*, COMPUTER L. STRATEGIST, Dec. 1997, at 8.

⁷⁴Sougata Mukherjee, *Small Business Lobs First Volley in Expected War Over Year 2000*, HOUS. BUS. J. (Dec. 15, 1997) <<http://www.amcity.com/houston/stories/121597/smallb5.html>>. In a related case, *Capellan v. Symantec*, Case No. CV 772147 (Cal. Super. Ct., Santa Clara Cty., filed Feb. 19, 1998), the plaintiff alleges that certain versions of the Norton anti-virus software program are materially defective because they are unable to process dates after December 31, 1999. The complaint alleges that the software developer violated warranties of merchantability by failing to offer free upgrades. Lauren McColester, *Class Action Filed Against Symantec; More Legislation*, COMPUTER L. STRATEGIST, Mar. 1998, at 3.

⁷⁵Mukherjee, *supra* note 74.

⁷⁶David M. Nadler & Kendrick C. Fong, *US: First Year 2000 Class Action Filed*, MONDAQ BUS. BRIEFING, Aug. 21, 1998, available in 1998 WL 9018118.

⁷⁷*Id.*

fact, I tell my kids that they should brush up on their COBOL and go to law school at night."⁷⁸

Lawsuits will not be limited to suits against software vendors.⁷⁹ Capers Jones identifies ten sources of litigation which could arise if a company does not become Year 2000 compliant in time:

- 1) client lawsuits for financial loss, 2) shareholder suits for stock losses, 3) shareholder suits for violation of fiduciary duty, 4) damages for injuries or deaths caused by computer malfunction problems, 5) class actions by commercial software users, 6) suits resulting from incompetent Year 2000 fixes, 7) suits against computer hardware companies, 8) malpractice suits against corporate attorneys, 9) suits against government agencies, and 10) suits against insurers.⁸⁰

Lou Marcoccio, a Year 2000 research director for the Gartner Group, had this to say about the impending litigation: "I will be surprised if there are less than 100 lawsuits filed where people are suing vendors, vendors are suing other vendors, and everybody is suing everybody else."⁸¹ Companies throughout the world will become both potential plaintiffs and defendants when the Millennium Bug strikes.

IV. LEGAL AUDIT

Once a company realizes it could be subject to massive litigation for not being Year 2000 compliant, it should implement a legal strategy to avoid potential liability. The first step should involve a legal audit designed to assess and avoid potential liabilities.⁸² Company attorneys should prepare a legal plan taking

⁷⁸Sue Mellon, *Protecting Your Company Against Year 2000 Liability*, DCI (Feb. 28, 1997) <<http://www.dci.expo.com/news/9702/2000legl.html>>.

⁷⁹Jeff Jinnett, president of LeBoeuf Computing Technologies, a Year 2000 consulting firm, describes other possible lawsuits which may arise. Among these are: 1) "misappropriation of trade secrets and tortious interference with a competitor's business, based on 'raiding' by one company of a competitor's programmers in order to have enough personnel to implement a Year 2000 corrective plan," and 2) lawsuits against banks and stock brokerage firms for money lost because of improper or failed financial transactions, stock trades or settlements. Jeff Jinnett, *Year 2000 "Millennium Bug" Litigation* (visited Jan. 3, 1998) <<http://www.llgm.com/FIRM/article5.htm>> [hereinafter *Millennium Bug*]. Jinnett was so excited by the opportunities offered by the Year 2000 problem that he gave up his partnership at the law firm and became "of counsel" so that he could head up a new business called LeBoeuf Computing Technologies, L.L.C., which performs Year 2000 liability assessments for companies wanting to purchase Year 2000 insurance.

⁸⁰Sarah Goddard, *Year 2000 Problem May Cost Trillions*, BUS. INS., Oct. 6, 1997, at 61.

⁸¹Sougata Mukherjee, *Businesses Suing Over Year 2000 Computer Bug*, JACKSONVILLE BUS. J., Nov. 7, 1997, at 4.

⁸²The law firm of Miller, Canfield, Paddock and Stone in Michigan provides a "Millennium Bug Survey" which lists the areas companies should review to prepare for the Year 2000. If a company answers "NO" to any of the questions, the company should

into consideration the company's exposure to possible lawsuits and lost profits. The attorney-client privilege and work-product immunity doctrine may apply to the internal legal audit thus protecting the company from dissemination of any damaging information.⁸³

Management will want to keep the results of the legal audit in a non-discoverable status so that if the company is sued, confidential company information will not be used against them. Management can accomplish this by conducting their liability audits using outside experts, such as accountants or tax consultants, acting within the scope of the *Kovel* shield.⁸⁴

According to *United States v. Kovel*, the attorney-client privilege extends to an outside expert's conversations with an attorney when the expert is hired to assist the attorney in rendering legal advice.⁸⁵ This privilege is necessary due

contact a Year 2000 attorney to assist in preparing for the millennium. The questions which companies should answer are as follows: 1) Do you have or are you working on a full-fledged strategy for dealing with the Year 2000 problem?; 2) Have you taken stock of your firm's computer systems to identify potential Year 2000 problems that will affect your business operations?; 3) If you have a plan of action in place, have you actually started repairing or replacing to correct the problem?; 4) Do you reasonably expect that your Year 2000 problems can be effectively addressed by January 1, 2000?; 5) If you have a Year 2000 team, does it include a lawyer?; 6) If your team includes a lawyer, do you use outside counsel?; 7) Have you maximized your bottom line by evaluating the tax effects of your Year 2000 fix?; 8) Have you maximized your bottom line by assessing potential insurance coverage?; 9) Have you obtained appropriate assurances of Year 2000 compliance from your suppliers and business partners?; 10) Have you reviewed your computer contracts for warranties and restrictions on modifications?; 11) Have you determined whether corporate disclosures to shareholders, government agencies or others are required regarding potential Year 2000 non-compliance?; 12) Have you taken steps to limit the potential liability of your officers and directors?; 13) Have you assured yourself that your fix will not violate third-party copyrights, and that your own trade secrets and intellectual property are adequately protected?; 14) Can you retain or attract the key personnel necessary to make your millennium transition?; 15) If you are engaged in a merger, acquisition, or corporate reorganization, have you given and required appropriate Year 2000 assurances?; 16) Have you positioned yourself strategically for possible lawsuits? Miller, Canfield, Paddock & Stone, *Millennium Bug Checklist*, P.L.C. (visited Oct. 10, 1998) <<http://www.millercanfield.com>>.

⁸³In *Upjohn Co. v. United States*, 449 U.S. 383, 386-89 (1981) the Supreme Court held that the attorney-client privilege applies to communications made by corporate employees concerning matters pertinent to their job tasks, if sought by the corporation's attorney in order to formulate and render legal advice to the corporation. The work product doctrine which arose from *Hickman v. Taylor*, 329 U.S. 495 (1947) and was codified in the Federal Rules of Civil Procedure 26(b)(3), protects documents and other tangible things prepared in anticipation of litigation by or for a party, or by or for a party's representative. Litigation need not be imminent as long as the primary purpose behind the creation of the document was to aid in possible future litigation. See *Osterneck v. E.T. Barwick Indus., Inc.*, 82 F.R.D. 81, 87 (N.D. Ga. 1979).

⁸⁴Samuel Kursh, *Getting Set for a Litigious New Millennium*, LEGAL INTELLIGENCER, Jan. 14, 1998, at 7.

⁸⁵*United States v. Kovel*, 296 F.2d 918, 921 (2d Cir. 1961). Kovel was a former Internal Revenue agent possessing accounting skills who was hired by Kamerman & Kamerman, a law firm specializing in tax law. Kovel, as employee of the law firm, reviewed the

to the complexity and difficulty of today's laws; lawyers should be able to employ outside help to sort out difficult business, accounting and tax records without fear of violating the client's privileged communications.⁸⁶ Year 2000 experts may be protected under *Kovel* thus shielding their analysis and recommendations of a company's Year 2000 compliance efforts from being discovered.

A Year 2000 legal audit includes a survey of the following areas: 1) potential areas of liability, 2) analysis of possible claims, 3) analysis of remediation costs, 4) documentation showing the company has been diligent in remediation, 5) a list of the company's software, technology and chip suppliers, 6) modifications to purchased software products, 7) assessment of Year 2000 remedies made by the supplier, 8) an analysis of potential lost profits from Year 2000 negligence on the part of suppliers, outside contractors or partners, 9) documentation proving lost-profit damages if and when Year 2000 problems occur in software from outside vendors, and 10) an assessment of insurance coverage.⁸⁷

During the formal audit, risk managers should examine all insurance policies to determine if they are covered for losses that occur due to computer system failure. Contracts with software vendors, license agreements and long-term maintenance agreements should be closely scrutinized to see which company actually has ownership, and thus responsibility, for the software.⁸⁸ New contracts for Year 2000 remediation and for new software and hardware purchases should include the necessary Year 2000 warranties to insure proper performance.⁸⁹ Since software is protected by copyright laws, license agreements must be reviewed to determine if a company has the right to modify the source code.⁹⁰ Outsourcers and other third-party vendors may have a legal responsibility to assist in solving the problem or contribute toward the Year 2000 compliance costs.⁹¹

In addition, companies need to send letters to all their software and hardware vendors putting them on legal notice that their software is not Year 2000 compliant and requesting information about when the vendor will be

records of Hopps, the law firm's client. Hopps was being investigated for alleged federal income tax violations. *Kovel* was subpoenaed to testify. However, the law firm advised that "since *Kovel* was an employee under the direct supervision of the partners, *Kovel* could not disclose any communications by the client of the results of any work done for the client. . . ." *Id.* at 919.

⁸⁶*Id.* at 921.

⁸⁷Kursh, *supra* note 84.

⁸⁸Lee Ann Gjertsen, 2000: *The Year of the Lawsuit*, NAT'L UNDERWRITER LIFE & HEALTH-FIN. SERVICES ED., Aug. 11, 1997, at 11, available in 1997 WL 12779278.

⁸⁹Mark Grossman, *Year 2000 Suits are Upon Us*, LEGAL TIMES, July 13, 1998, at 43.

⁹⁰*Id.*

⁹¹Jaikumar Vijayan, *Paying For Year 2000 Repairs: Vendors Could be Held Responsible*, COMPUTERWORLD, Aug. 18, 1997, at C37.

come Year 2000 compliant.⁹² A company's failure to request that a vendor assist in the repair may constitute a waiver by the company of its right to later seek reimbursement for the costs incurred in making the software Year 2000 compliant.⁹³ Even if a vendor's warranty covers Year 2000 repairs or upgrades, cut-off dates may have been established by vendors to minimize their liability.⁹⁴

V. UNIFORM COMMERCIAL CODE

A. Choice of Law

When lawsuits arise between a customer and a computer company, an important question will be whether to apply the Uniform Commercial Code (U.C.C.) or state contract law. Most Year 2000 claims will be governed by the Uniform Commercial Code. Article 2 of the U.C.C. applies to "transactions in goods." Article 2 defines "goods" as "all things (including specially manufactured goods) which are movable at the time of identification to the contract for sale."⁹⁵

Computer hardware is a "good" under the U.C.C.⁹⁶ Software, by itself, is also a "good" and the U.C.C. will apply to a contract for the sale or license of software.⁹⁷ Specially developed software is considered by many courts to constitute a "good" under the U.C.C.⁹⁸ The present trend is to also apply the U.C.C. to licenses for the use of software because, even though title does not pass, the lease arrangement indicates a sale and is a "transaction" under the U.C.C.⁹⁹

"Mixed" contracts involving both a sale of goods and services are not automatically included in the U.C.C. merely because goods were sold. Courts will examine each particular sale to determine whether the predominant nature

⁹²Jeff Jinnett, *Legal Issues Concerning the Year 2000 "Millennium Bug"*, COMPUTER LAW., Dec. 1996, at 16, 18 [hereinafter *Legal Issues*].

⁹³*Id.*

⁹⁴Shane McLaughlin, *Law and Disorder in the Year 2000*, INC. ONLINE (Nov. 18, 1997) <<http://www.inc.com/extra/special/11189721.html>>.

⁹⁵U.C.C. § 2-105 (1997).

⁹⁶*Investors Prelimium Corp. v. Burroughs Corp.*, 389 F. Supp. 39 (D.S.C. 1974).

⁹⁷*CogniTst Corp. v. Riverside Publ'g Co.*, 107 F.3d 493 (7th Cir. 1997)(using the Illinois U.C.C.); *Advent Sys. v. Unisys*, 925 F.2d 670 (3d Cir. 1991); *Chatlos Sys., Inc. v. National Cash Register Corp.*, 635 F.2d 1081 (3d Cir. 1990)(applying the New Jersey U.C.C.).

⁹⁸*Huron Tool and Eng'g Co. v. Precision Consulting Serv.*, 532 N.W.2d 541 (Mich. Ct. App. 1995)(applying the U.C.C. to the sale of customized computer software); *Data Processing Serv., Inc. v. L.H. Smith Oil Corp.*, 492 N.E.2d 314, 318 (Ind. Ct. App. 1986).

⁹⁹*NMP Corp. v. Parametric Tech. Corp.*, 958 F. Supp. 1536, 1542 (N.D. Okla. 1997) (holding that a software licensing agreement was a contract for the sale of goods).

of the transaction is for goods or for services. If the service element dominates the transaction, with the goods only being incidentally supplied, then the U.C.C. will not apply.¹⁰⁰ Contracts for services will be subject to the principles of state contract law.

B. Statute of Limitations

The most significant and viable defense that software vendors will assert against claims by aggrieved customers will be the statute of limitations. The U.C.C. has a four-year statute of limitations that begins to run once the goods are delivered, rather than the time of injury.¹⁰¹ This means that the limitation period starts running from the delivery date, even though the buyer may not know about the date field problem. Unless software is purchased after December 31, 1995, the statute will have run for those wishing to bring suit in the first few days of the Year 2000. Clients are being advised that they should reach tolling agreements with their software vendors if they do not wish to file suit now.¹⁰² The U.C.C. also provides that the parties may reduce the period of limitation to not less than one year, but they may not extend it.¹⁰³

If a software transaction was not deemed to be a sale of a good, but rather a service, then ordinary contract law principles would apply. The statute of limitations for a contract action is six years and begins to run on the date the contract is breached.¹⁰⁴ Therefore, irrespective of when the goods were delivered, the customer's time to file suit would not start until the product began to malfunction.¹⁰⁵

VI. POTENTIALLY LIABLE PARTIES

A. Vendor Liability

Are software vendors legally responsible for making their products Year 2000 compliant? The answer depends on the contracts between the company and the vendor. Software vendors will be the first group of potential defendants as companies seek to sue for non-compliance.

Carefully drafted warranties and contracts will often limit a vendor's liability. By including merger and integration clauses into a contract, vendors

¹⁰⁰Computer Serv. Ctr., Inc. v. Beacon Manuf. Co., 654 (D. S.C. 1970), *aff'd*, 443 F.2d 906 (4th Cir. 1971).

¹⁰¹U.C.C. § 2-725(1), (2) (1997).

¹⁰²Kerry A. Kearney, *With Problems and Lawsuits Looming, Companies Must Make Compliance Their Top Priority*, N.Y.L.J., July 13, 1998, at S9.

¹⁰³U.C.C. § 2-725(1)(1997).

¹⁰⁴Alissa Pyrich, *Preparing For Year 2000 Legislation*, LEGAL INTELLIGENCER, May 11, 1998, at 6.

¹⁰⁵*Id.*

can claim that the terms of the contract control and that any representations not in the contract are not applicable.¹⁰⁶

Some companies will file breach of warranty suits claiming a hidden defect was found in the software. If a company can show that the defect was hidden and the company could not have known about it, they may be able to avoid the expiration of a warranty.¹⁰⁷

Consumers can sue under the theory of express or implied warranties.¹⁰⁸ An express warranty is a statement presented as fact, a product description or a promise made concerning the software product that the goods will conform to the promise or description.¹⁰⁹ A sales pitch stating that "this product will last well into the next century" may be treated as an express warranty that the product under consideration is Year 2000 compliant.¹¹⁰ Failure to meet the stated expectation is all that is needed to establish the breach of an express warranty. "When the express warranty relates to the performance of the goods, proof that the goods did not function as warranted is sufficient proof that there was a breach of the express warranty and it is not necessary to show the defect that caused the goods to malfunction."¹¹¹ Express warranties are difficult to disclaim because they generally go to the essence of the bargain and form the basis of the agreement between the parties.¹¹² However, some vendors are already disclaiming liability arguing that the company "assumed the risk" of

¹⁰⁶Merger and integration clauses are used in the formation of contracts and state that the contract represents the parties' complete and final agreement and supersedes all informal understandings and oral agreements relating to the subject matter of the contract. BLACK'S LAW DICTIONARY 989 (6th ed. 1990).

¹⁰⁷Elaine Appleton, *Who Will Pay for Year 2000 Fixes?*, DATAMATION, (Jan. 1997) <<http://www.datamation.com/Plugin/workbench/yr2000/stories/fixes.htm>>.

¹⁰⁸An express warranty by the seller is created in part when: 1) any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise; 2) any description of the goods, which is made part of the basis of the bargain, creates an express warranty that the goods shall conform to the description. U.C.C. § 2-313 (1997). *See also* Ohio Savings Bank v. H.L. Vokes Co., 560 N.E.2d 1328 (Ohio 1989).

¹⁰⁹Howard Gutman, *Should the UCC Apply to Year-2000 Deficiencies?*, NAT'L L.J., Feb. 2, 1998, at C6. Promotional brochures, advertisements, sales proposals or other correspondence that indicates performance over a given period of time may create an express warranty. *Id.*

¹¹⁰"[I]f the vendor contractually guarantees the correct, continuous operation of the application in production, by default they [the vendor] are responsible for the century migration effort." WILLIAM ULRICH & IAN HAYES, *THE YEAR 2000 SOFTWARE CRISIS: CHALLENGE OF THE CENTURY* 183 (1997).

¹¹¹AMERICAN LAW OF WARRANTIES 236-37 (1991).

¹¹²U.C.C. § 2-313 cmts. 1, 4 (1997).

purchasing non-compliant software because the problem has been common knowledge for years.¹¹³

Two types of implied warranties may be implicated during Year 2000 litigation; the warranty of merchantability and the warranty of fitness for a particular purpose. These warranties arise by operation of law and are not triggered by representations made by the software vendor.¹¹⁴

A seller who is a merchant with respect to those goods sold implies a warranty of merchantability in every sale of consumer goods.¹¹⁵ The warranty provides that in every sale of goods there is a promise that the goods are fit for the ordinary purposes for which such goods are used and the goods will meet the applicable standards of the industry.¹¹⁶ For example, if certain software bought in 1990 would be expected to have a 15-year life span or would be used to calculate dates into the Year 2000, failure to provide a Year 2000 compliant product would constitute a breach of the warranty of merchantability. Year 2000 plaintiffs would argue that the Year 2000 problem renders the goods unfit for their intended purpose. Customers would assert that the inability to input dates after 1999 prevents the software from functioning as intended.¹¹⁷

Industry standards and knowledge of the Year 2000 problem in the computer industry will determine the outcome of litigation over the implied warranty of merchantability.¹¹⁸ Expert witnesses may be called to introduce evidence about the awareness of the Year 2000 problem and what could have been done to remedy the problem when the goods were sold. The cost of memory at the time the software and hardware was created, and the expense and difficulty of using a four-digit date in the product are also relevant.¹¹⁹

The warranty of fitness for particular purpose is implied in a contract for the sale of goods:

Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable

¹¹³*Legal Issues*, *supra* note 92, at 18; *see also* Jon Newberry, *Beat the Clock*, ABA J., June 1997, at 49, 52 (stating that companies that sat idly by will have a tough time proving that software providers should pay for the damages when the companies themselves willfully ignored the problem).

¹¹⁴David M. Nadler & Edward W. Kirsch, *US: The Year 2000 Problem—Guidelines for Value Added Resellers*, MONDAQ. BUS. BRIEFING, Aug. 25, 1998, available in 1998 WL 9018129.

¹¹⁵U.C.C. § 2-314(1) (1997); *see also* *Ohio Savings Bank v. H.L. Vokes Co.*, 560 N.E.2d 1328, 1334 (Ohio 1989).

¹¹⁶U.C.C. § 2-314(2)(c).

¹¹⁷Patricia Horn, 2000: *A Legal Odyssey*, FT. LAUDERDALE, SUN-SENTINEL, June 4, 1998, at 1D.

¹¹⁸Alissa Pyrich, *Preparing For Year 2000 Legislation*, LEGAL INTELLIGENCER, May 11, 1998, at 6.

¹¹⁹*Id.*

goods, there is unless excluded or modified . . . an implied warranty that the goods shall be fit for such purpose.¹²⁰

A situation where this warranty would be breached would occur when a customer asks a software developer for a certain type of system that would be operable into the Year 2000, and the developer fails to ensure that the system is Year 2000 compliant. For example, in *Chatlos Sys. v. National Cash Register Corp.*, the defendant, NCR, held itself out as a computer retailer having expertise in the computer field.¹²¹ The plaintiff informed the NCR salesman of his particular computer needs, and the salesman suggested a computer system that would meet the plaintiff's needs.¹²² The court found that NCR was aware that the plaintiff buyer was relying on the skill and judgment of the salesman. Consequently, the court held that an implied warranty of fitness arose under U.C.C. § 2-315.¹²³

Software customers who believe they were fraudulently misled to their detriment by a seller's material misrepresentations of fact may sue for the tort of fraud.¹²⁴ Liability for fraud will be found when a vendor knowingly misrepresents software as being Year 2000 compliant, thus inducing the customer to buy the product.¹²⁵ According to a long standing rule, "[a] person injured by fraud is entitled to such damages as will fairly compensate him for the wrong suffered, that is, the damages sustained by reason of the fraud or deceit, and which have naturally and proximately resulted therefrom."¹²⁶

Applying this rule to the Year 2000 problem, the injured customer whose software is not Year 2000 compliant must be compensated for the wrong suffered. This may entail the vendor replacing the customer's software with a Year 2000 compliant version, or repairing the existing software at the vendor's expense. However, fraud claims are difficult to prove since a vendor's false

¹²⁰U.C.C. § 2-315 (1997); see also *Hollingsworth v. The Software House*, 513 N.E.2d 1372, 1375 (Ohio 1986)(applying the elements of the warranty of fitness for particular purpose to the purchaser of a computer system who relied on the seller to select an appropriate system).

¹²¹*Chatlos Systems, Inc., v. National Cash Register Corp.*, 479 F. Supp. 738 (D.C. N.J. 1979).

¹²²*Id.* at 741.

¹²³*Id.* at 743.

¹²⁴The elements of fraud are: (a) a representation or, where there is a duty to disclose, concealment of a fact; (b) which is material to the transaction at hand; (c) made falsely, with knowledge of its falsity, or with such utter disregard and recklessness as to whether it is true or false that knowledge may be inferred; (d) with the intent of misleading another into relying upon it; (e) justifiable reliance upon the representation or concealment; and (f) a resulting injury proximately caused by the reliance. *Burr v. Stark Cty. Bd. Of Comm'rs.*, 491 N.E.2d 1101 (Ohio 1986)(syllabus para. 2).

¹²⁵*Millennium Bug*, *supra* note 79.

¹²⁶*Foust v. Valleybrook Realty Co.*, 446 N.E.2d 1122, 1126 (Ohio 1981).

statements are usually made orally, thus making it the customer's word against the vendor's as to whether the false representations were made.

Software customers may bring negligent misrepresentation claims charging vendors with failure to design Year 2000 compliant software or failure to warn customers of the Year 2000 problem.¹²⁷ Vendors will be considered negligent if they could have foreseen the potential damages resulting from producing and selling the non-compliant product.¹²⁸ A claim of negligent misrepresentation does not require the vendor to have knowledge of the statement's falsity.¹²⁹ However, with a claim for fraud, the vendor must have knowledge of the falsity at the time the statement was made.

A vendor can limit its liability by including liquidated damages clauses into its contracts.¹³⁰ Such clauses will be upheld provided they are a reasonable estimate of the anticipated actual harm caused by the breach.¹³¹ A software customer's recovery can also be limited to an upgrade or modification of the current software to a Year 2000 compliant version provided these contract provisions were negotiated between the parties.¹³²

If a vendor's contract contains a *force majeure* clause, then the vendor will assert he is protected from an "Act of God" or other event that was beyond his control.¹³³ Normally, nonperformance of contract duties would subject a vendor to breach of contract liability. However, if the breach occurred because

¹²⁷The elements of negligent misrepresentation are as follows:

One who, in the course of his business, profession or employment, or in any other transaction in which he has a pecuniary interest, supplies false information for the guidance of others in their business transactions, is subject to liability for pecuniary loss caused to them by their justifiable reliance upon the information, if he fails to exercise reasonable care or competence in obtaining or communicating the information.

RESTATEMENT (SECOND) OF TORTS § 552(1) (1977).

¹²⁸*See, e.g.,* Invacare Corp. v. Sperry Corp., 612 F. Supp. 448 (N.D. Ohio 1984) (charging computer vendor for negligently suggesting a certain computer system and inappropriate programs).

¹²⁹RESTATEMENT (SECOND) OF TORTS § 552(2) (1977).

¹³⁰A liquidated-damages clause is a contractual provision that determines in advance the measure of damages to be assessed if a party defaults. BLACK'S LAW DICTIONARY 391 (6th ed. 1990).

¹³¹U.C.C. § 2-718(1) (1997).

¹³²According to Jeff Jinnett, defendants could also use other potential defenses. For example: 1) if the defendant was unable to perform due to the failure of one its suppliers resulting from a Year 2000 problem, the failure of which was not expected by the defendant and was beyond the defendant's reasonable control, a defendant would not be liable under a theory of "force majeure", or Act of God, for the breach of the contract with the plaintiff; and 2) the defendant was adhering to standard industry practice considered to be reasonable on a cost-benefit analysis when designing computer systems, writing software or manufacturing microchips using the two digit date field. *Millennium Bug*, *supra* note 79.

¹³³JIM KEOGH, SOLVING THE YEAR 2000 PROBLEM 86 (1997).

of a fire, flood or other "Act of God", then the vendor will be relieved of liability.¹³⁴ Because the Year 2000 problem is a foreseeable and predictable event that could be corrected, it is unlikely that it will be considered an "Act of God."

B. Product Manufacturer Liability

Product liability suits will arise against product manufacturers that use embedded chips. While strictly a personal injury tort, the potential for lawsuits exists.¹³⁵ Imagine a railroad crossing arm that fails to signal oncoming motorists of a train. An embedded chip in the crossing arm could not process dates after December 31, 1999, causing the crossing arm to malfunction. Injured plaintiffs must prove that a defect in the system existed.¹³⁶ However, using "00" in computer software and embedded chips was a design protocol and may not be considered a defect. Although the potential for joint, strict and several liability is very real for these manufacturers, the majority of damage facing major corporations will concern monetary losses suffered when software programs and embedded chips fail in mission-critical products.¹³⁷

Under the economic loss doctrine, a purchaser of defective goods is barred from bringing a negligence claim when the case is governed by the U.C.C.¹³⁸ Consequently, courts are reluctant to allow recovery under a product liability or strict liability standard when only economic damage is alleged.¹³⁹ The Ohio

¹³⁴MICHAEL S. HYATT, *THE MILLENNIUM BUG: HOW TO SURVIVE THE COMING CHAOS* 152 (1998).

¹³⁵The California Supreme Court has held that:

[a] manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury. . . . To establish the manufacturer's liability, it was sufficient that plaintiff proved that he was injured while using the [product] in a way it was intended to be used as a result of a defect in design and manufacture of which plaintiff was not aware that made the [product] unsafe for its intended use.

Greenman v. Yuba Power Prods., Inc., 377 P.2d 897, 900-01 (1963).

¹³⁶*Id.*

¹³⁷In his testimony before Congress, Vito Peraino stated,

Typically, there is no relief in the law of products liability for economic injury alone. However, many states' consumer protection laws and consumer fraud laws supplant the common law of products liability to give consumers a remedy in these instances. Furthermore, courts will be tempted to stretch the definition of "property damages" to provide an avenue of relief should the Year 2000 problem become as disruptive as its potential suggests.

Hearings, supra note 34, at 31.

¹³⁸*Gutman, supra* note 109.

¹³⁹The Supreme Court has held that "a commercial product injuring itself and inflicting only economic injury is 'not the kind of harm against which public policy requires manufacturers to protect, independent of any contractual obligation.'" East

Supreme Court's decision in *Chemtrol Adhesives v. American Manufacturers Mutual Insurance Co.*¹⁴⁰ set the standard concerning product liability suits claiming purely economic losses. The *Chemtrol* court held:

A commercial buyer seeking recovery from the seller for economic losses resulting from damage to the defective product itself may maintain a contract action for breach of warranty under the Uniform Commercial Code; however, in the absence of injury to persons or damage to other property, the commercial buyer may not recover for economic losses premised on tort theories of strict liability or negligence.¹⁴¹

However, when personal injury occurs due to non-Year 2000 compliance, product design flaws could lead to claims for negligent design or strict liability.¹⁴² The greatest exposure for such claims will be present in avionics software programs and in medical equipment programs.¹⁴³

To combat Year 2000 liability costs and to control the blizzard of lawsuits that will arise from the millennium bug, Florida Senator John Grant has proposed a bill that would limit damages and class action lawsuits in Year 2000 cases.¹⁴⁴ The proposed bill, dubbed the Consumer Protection Act of 1998, offers a series of prescribed remedies to companies hurt by Year 2000 mishaps.¹⁴⁵ The bill's four main points include: 1) eliminating most Year 2000 class action lawsuits

River Steamship Corp. v. Transamerica Delaval, 476 U.S. 858, 866 (1986). The Court stated that the minority of states which allow negligence claims for purely economic damages "fails to account for the need to keep products liability and contract law in separate spheres and to maintain a realistic limitation on damages." *Id.* at 871; *see also* *Miller's Bottled Gas, Inc. v. Borg-Warner Corp.*, 955 F.2d 1043, 1045 (6th Cir. 1992)(holding that plaintiff could not recover under products liability theory for purely economic injury); *Neilbarger v. Universal Corp. Inc.*, 486 N.W.2d 612, 618 (Mich. 1992) (holding that "where a plaintiff seeks to recover for economic loss caused by a defective product purchased for commercial purposes, the exclusive remedy is provided by the U.C.C.").

¹⁴⁰*Chemtrol Adhesives, Inc. v. American Mfrs. Mut. Ins. Co.*, 537 N.E.2d 624 (Ohio 1989).

¹⁴¹*Id.* at (syllabus para. 2); *see also* *Spring Motors Dist., Inc. v. Ford Motor Co.*, 489 A.2d 660 (N.J. 1985)(holding that a commercial buyer seeking economic loss damages from an immediate seller and remote supplier could maintain a U.C.C. breach of warranty action but not a strict liability or negligence action).

¹⁴²WARREN FREEDMAN, *DEFENSES TO PRODUCTS LIABILITY: A PRIMER FOR PLAINTIFFS AND DEFENDANTS* 289-93 (1996).

¹⁴³John Morrissey & Scott Hensley, *The Countdown Continues: Hospitals and Healthcare Systems are Racing the Clock to Determine the Severity of the Year-2000 Bug Infestation*, MOD. HEALTHCARE, Aug. 10, 1998, at 46. *See also* Gregory L. Vistica et al., *The Day the World Shuts Down*, NEWSWEEK, June 2, 1997, at 53, 57.

¹⁴⁴Paul Abercrombie, *Bill to Address Y2K Problem*, TAMPA BAY BUS. J., Sept. 11, 1998, at 1.

¹⁴⁵*Id.*

by requiring each class member to have suffered damages in excess of \$50,000; 2) restricting shareholder suits by indemnifying company directors and officers from Year 2000 lawsuits in certain circumstances; 3) requiring third parties to carry liability insurance when they assist other companies in becoming Year 2000 compliant; and 4) prescribing damages against businesses, people and the government for losses caused by millennium bug computer glitches.¹⁴⁶ The proposed law will hold companies liable for compensatory damages, with punitive damages limited to three times the compensatory award for failure to become compliant by January 1, 2000.¹⁴⁷ Government agencies would only be responsible for compensatory damages.

In related legislation, President Clinton's "The Good Samaritan Bill," S. 2392, was passed by both houses of Congress.¹⁴⁸ The bill is intended to encourage the disclosure and exchange of information regarding Year 2000 computer processing difficulties and Year 2000 readiness.¹⁴⁹ President Clinton's Good Samaritan law contains three major provisions. First, the bill protects companies from lawsuits if the company, in good faith, makes statements or exchanges information on their Year 2000 readiness, even if the statement turns out to be false.¹⁵⁰ Second, an antitrust exception is created for companies that share their Year 2000 information with other companies.¹⁵¹ Finally, with limited exceptions, companies could post Year 2000 information on the World Wide Web, thus providing adequate notice.¹⁵² Companies making knowingly false or reckless statements will not be protected.¹⁵³

C. Director and Officer Liability

While the majority of legal actions will be directed at vendors and service providers, many lawsuits in the new millennium will come from shareholders and will be directed at the corporations themselves. Francis Kean, partner at the London law firm of Barlow, Lyde & Gilbert, asserts, "[t]here are all sorts of

¹⁴⁶*Id.*

¹⁴⁷Mark A. Hofmann, *Limiting Y2K Liability: Florida Bill Would Protect Businesses From Millennium Bug Lawsuits*, BUS. INS., Sept. 28, 1998, at 1.

¹⁴⁸Blaise Zerega, *Senate Passes Bill to Cover Y2K Liabilities*, INFO. WORLD, Oct. 5, 1998, at 14.

¹⁴⁹*More Year 2000 Legislation*, COMPUTER L. STRATEGIST, Sept. 1998, at 4.

¹⁵⁰J. Leffall, *Government Also Preparing For Y2K*, RICHMOND TIMES DISPATCH, Oct. 4, 1998, at F8.

¹⁵¹*Id.*

¹⁵²*Id.* Skeptics of the bill argue that such exceptions whittle away at the very protection the bill intends to provide. For instance, a court could grant an exception to the legal protection if the disclosure became the basis for an anticipatory breach of contract suit resulting from Year 2000 non-compliance. Zerega, *supra* note 148.

¹⁵³Barnaby J. Feder, *S.E.C. Guidelines to Yield Data on Year 2000 Risks*, N.Y. TIMES, Oct. 5, 1998, at C2.

duties that directors owe; there are all sorts of statutes which they can be in breach of; they can suffer fines, penalties, and, in theory, actions from disappointed shareholders or third parties."¹⁵⁴ Since the Year 2000 problem is a foreseeable issue, the failure of a corporation's Board of Directors to develop and implement a remediation plan may constitute a breach of their duty of care to the corporation and its shareholders.

Directors and officers owe their corporation a fiduciary duty of care that requires that they exercise reasonable diligence in the performance of their obligations on behalf of the corporation.¹⁵⁵ Failure to uphold this duty could result in imposition of personal liability for harm to the corporation.¹⁵⁶ Furthermore, it is very likely that in the near future, legislation requiring corporations and their directors to solve their Year 2000 problems will be passed.¹⁵⁷ Directors and officers will be the objects of criticism by enraged customers and shareholders seeking to cast blame.¹⁵⁸ Shareholders will claim that someone should have foreseen the Year 2000 problem and prevented it.

A director's fiduciary duties consist of the duty of loyalty to the corporation's best interests and the duty of exercising due care.¹⁵⁹ According to the Ohio Revised Code:

¹⁵⁴Lisa Howard, *Y2K Woes May Spur U.K. D&O, E&O Sales*, NAT'L UNDERWRITER PROP. & CASUALTY-RISK & BENEFITS MGMT., Nov. 10, 1997, at 10.

¹⁵⁵"It is undisputed that the individuals who control corporations owe a fiduciary duty to their corporations and their shareholders." *Graham v. Mimms*, 444 N.E.2d 549, 556 (Ill. 1982).

¹⁵⁶*Legal Issues*, *supra* note 92, at 22.

¹⁵⁷Senator Robert Bennett (R-UT) introduced the CRASH Protection ACT—the Computer Remediation and Shareholder Protection Act of 1997, S. 1518—on November 10, 1997. The bill would require publicly traded companies to make specific disclosures in their initial offering statements and quarterly reports regarding the ability of their computer systems to operate after December 31, 1999. Ronald J. Palenski, *Tech-Related Bills Pile Up in Congress*, NAT'L L. J., Feb. 2, 1998, at C1, C2; *see also* Vito Peraino & Deborah Pitts, *Year 2000 Picture Darker By The Day*, NAT'L UNDERWRITER PROP. & CASUALTY-RISK & BENEFITS MGMT., Dec. 15, 1997, at 2. California State Governor Pete Wilson signed an executive order on October 10, 1997, setting December 31, 1998, as the deadline for state agencies to resolve their Year 2000 problems. The order mandates that the State purchase only Year 2000 compliant software and hardware, that each state agency make regular reports regarding their remediation progress, and that the State define Year 2000 compliance standards. *Are You Ready For the Year 2000?*, MONDAQ BUS. BRIEFING, Dec. 11, 1997, available in 1997 WL 16430092.

¹⁵⁸Diana McKenzie, partner at Chicago's Gordon & Glickson believes that "[w]hen hotels can't check people out or make reservations, when pharmaceutical companies can't sell drugs, because someone hasn't converted the software to accommodate expiration dates beyond the year 1999, the option of shareholder derivative actions is very real." Wendy R. Leibowitz, *Lawyers Brace for Countdown and Out to 2000*, NAT'L L. J., Oct. 28, 1996, at A7.

¹⁵⁹Dennis J. Block et al., *The Duty of Loyalty and the Evolution of the Scope of Judicial Review*, 59 BROOK. L. REV. 65, 67 (1993).

A director shall perform his duties as a director . . . in good faith, in a manner he reasonably believes to be in or not opposed to the best interests of the corporation, and with the care that an ordinarily prudent person in a like position would use under similar circumstances.¹⁶⁰

The duty of loyalty issue will arise when a director or officer puts his personal interests above the corporation's interests.¹⁶¹ This happens when a director or officer engages in self-dealing or uses his corporate position to make a personal profit illegally. The misappropriation of confidential information regarding the corporation's progress on its Year 2000 plan will be a breach of this fiduciary duty.¹⁶² If one or more shareholders believes that he, or the corporation, suffered financially and a director or officer profited, a derivative lawsuit against the director or officer is likely.¹⁶³ Such a claim may be based on the belief that the director or officer improperly used confidential information regarding Year 2000 problems.

In the Year 2000 context, a director or officer could end up personally liable for damage to the corporation's net worth if a failure to exercise the appropriate standard of care resulted in a decline in the stock's value.¹⁶⁴ Shareholder complaints will be based on "[d]eficient or non-existent Year 2000 efforts causing business interruptions, damages or failures" and "[i]ncorrect or misleading financial reporting that omits Year 2000-related costs."¹⁶⁵ Furthermore, misleading financial reports regarding Year 2000 efforts may cause some investors to invest in companies they may otherwise not have invested in.¹⁶⁶

¹⁶⁰OHIO REV. CODE ANN. § 1701.59(B)(Anderson 1997).

¹⁶¹Block, *supra* note 159, at 65.

¹⁶²United States v. O'Hagan, 117 S. Ct. 2199 (1997)(holding that a person who trades in securities for personal profit, using confidential information in breach of a fiduciary duty to the source of the information, may be held liable); *see also* Integrated Solutions, Inc. v. Service Support Specialities, Inc., 124 F.3d 487 (3d Cir. 1997); Defcon, Inc. v. Webb, 687 So.2d 639 (La. Ct. App. 1997)(discussing a breach of fiduciary claim based on misappropriation of confidential information).

¹⁶³A shareholder derivative suit "is a uniquely equitable remedy in which a shareholder asserts on behalf of a corporation a claim belonging not to the shareholder, but to the corporation." Levine v. Smith, 591 A.2d 194, 200 (Del. 1991).

¹⁶⁴Hearings, *supra* note 34, at 20. An example would be a shareholder who owns stock in a company worth \$60 per share. Because the company did not become Year 2000 compliant in time, the stock price plummets to \$30 per share in the first week of 2000. The infuriated shareholder could then institute a derivative suit against the company asserting negligence.

¹⁶⁵*Id.*

¹⁶⁶*Id.* Misleading financial statements, whether the result of a Year 2000 issue or due to understatement of bond loan reserves can result in shareholder actions against senior directors and officers. *See* Wells Fargo Sec. Litig. v. Wells Fargo & Co., 12 F.3d 922, 924 (9th Cir. 1993)(holding that Wells Fargo directors and officers violated rule 10(b)-5 of

As a defense, directors and officers will claim they are sheltered from liability under the Business Judgment Rule.¹⁶⁷ In *Aronson v. Lewis*, the Delaware Supreme Court set forth the rule as follows:

It is a presumption that in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company. . . . Absent an abuse of discretion, that judgment will be respected by the courts.¹⁶⁸

To use the rule as a protection against liability, directors must inform themselves, prior to making a business decision, of all relevant information reasonably available to them.¹⁶⁹ The only "safe harbor" available to directors and officers is a good faith effort to determine the relevant facts and to implement appropriate solutions. If, in good faith, directors and officers follow an acceptable Year 2000 remediation program, they will be protected even if their decisions turn out to be wrong in hindsight.¹⁷⁰ Honest business decisions made in good faith and on the basis of a reasonable investigation are not actionable, even though the decision is mistaken, unfortunate, or even disastrous.¹⁷¹

In order for the Business Judgment Rule to apply, a conscious decision regarding Year 2000 remediation efforts must be made. If a director merely asserts ignorance of the Year 2000 problem, the rule will not act as a shield against director liability.¹⁷²

the Securities Exchange Act of 1934 by fraudulently withholding material information and by deliberately failing to recognize problem loans thus artificially inflating the stocks trading price).

¹⁶⁷The Business Judgment Rule is a rebuttable presumption that directors and officers are better suited than the courts to make business decisions and that the directors and officers acted without self dealing or personal interest, exercised reasonable diligence and acted in good faith. *Gries Sports Enters., Inc. v. Cleveland Browns Football Co.*, 496 N.E.2d 959, 963-64 (Ohio 1986).

¹⁶⁸*Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984)(quoting *Kaplan v. Centex Corp.*, 284 A.2d 119, 124 (Del. 1971)).

¹⁶⁹*Id.*

¹⁷⁰*In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959, 967 (Del. 1996)(holding that "whether a judge or jury considering the matter after the fact, believes a decision substantively wrong . . . provides no ground for director liability, so long as the court determines that the process employed was either rational or employed in a good faith effort to advance corporate interests").

¹⁷¹*Shlensky v. Wrigley*, 237 N.E.2d 776 (Ill. App. 1968) (holding that decision not to play night games at Wrigley Field did not constitute mismanagement or a failure to exercise reasonable care in the operation of the corporation).

¹⁷²Warren S. Reid, head of WSR Consulting Corp. and a Year 2000 expert, believes that, "no Officer or Director will be able to avoid liability for [the Year 2000] problem, in his/her company, after [the Year 2000], using a defense of ignorance (i.e., [a director] can't say, 'I was not aware of the problem, its significance, magnitude, or its affect [on]

Detailed documentation recording Year 2000 remediation efforts would assist in the defense of shareholders' lawsuits claiming Year 2000 compliance failure. In this matter, directors would submit to the court a review of the company's adopted Year 2000 implementation plan. Proper documentation would allow a company to show that "due diligence" or good-faith efforts were used to solve the problem.¹⁷³ Due diligence consists of a written audit trail addressing Year 2000 awareness, assessment and resolution.¹⁷⁴ Due diligence entails consulting with Year 2000 experts and corporate officials during every stage of the Year 2000 remediation program.¹⁷⁵

VII. DISCLOSURE ISSUES

Since disclosure requirements established by the Securities and Exchange Commission (hereinafter SEC) must be followed by public companies, the SEC has issued disclosure guidelines concerning the Year 2000 problem and requires such disclosures to be presented outside of public companies' financial statements.¹⁷⁶ The SEC's disclosure framework requires material information to be disclosed by companies to give investors the opportunity to make informed investment decisions.¹⁷⁷ The SEC believes Year 2000 disclosures must be provided by a company if that company has not completed its assessment of its Year 2000 issues.¹⁷⁸ Disclosure is also required if the results of its Year 2000 issues have been determined by management to have a material impact on the company's business, results of operations, or financial condition.¹⁷⁹ Non-public companies should assess whether disclosure would be beneficial for their financial statement users. Year 2000 disclosures can be included in annual reports, audited or unaudited notes to an entity's financial statements or other communications to a company's financial statement users.¹⁸⁰

my organization. . .)" Warren S. Reid & Steven Brower, *Beyond Awareness: Ten Management and Ten Legal Pitfalls Regarding the Year 2000 Computer Problem That You May Not Have Considered, YET!*, (visited Jan. 3, 1998) <<http://www.wsrsg.com/BeyondA.htm>>.

¹⁷³Lee Ann Gjertsen, 2000: *The Year of the Lawsuit*, NAT'L UNDERWRITER LIFE & HEALTH-FIN. SERVICES ED., Aug. 11, 1997, at 11, available in 1997 WL 12779278.

¹⁷⁴Sandy Sampson, *IT on Trial*, SOFTWARE MAG., Oct. 1997, at 42.

¹⁷⁵*Legal Issues*, *supra* note 92, at 23.

¹⁷⁶*Year 2000 Issue Disclosure Considerations: Public and Nonpublic Entities* (visited Jan. 3, 1998) <<http://www.aicpa.org/members/y2000/discon.htm>>.

¹⁷⁷*Interpretation: Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers* (SECURITIES AND EXCHANGE COMMISSION, Aug. 4, 1998) <<http://www.sec.gov/rules/concept/33-7558.htm>>.

¹⁷⁸*Id.*

¹⁷⁹*Id.*

¹⁸⁰*Supra* note 176.

The SEC's Division of Corporation Finance and Investment Management on October 8, 1997, issued Staff Legal Bulletin No. 5.¹⁸¹ The Bulletin was revised on January 12, 1998, to provide more specific guidance under existing rules and regulations.¹⁸² According to the Bulletin, public companies must disclose potential costs, problems and uncertainties related to the Year 2000.¹⁸³ Full and fair disclosure also includes disclosing the company's state of readiness, the risks of the company's Year 2000 issues, and the company's contingency plans.¹⁸⁴ Failure to disclose Year 2000 problems could result in severe consequences to a corporation and its directors and officers.

Public companies may use several alternative methods to disclose a material event or uncertainty. Many Year 2000 disclosures may be referenced in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of their annual or quarterly reports.¹⁸⁵ The problem may also be presented in the section entitled "Description of Business" which might discuss any future material impact on certain business segments.¹⁸⁶

Furthermore, Generally Accepted Accounting Principles (GAAP) requires "Accounting for Contingencies." A contingency is "an existing condition, situation, or set of circumstances involving uncertainty as to possible gain or loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur."¹⁸⁷ The Year 2000 problem could be considered one of those contingencies if it is not appropriately addressed. If it is reasonably possible that a company will not become Year 2000 compliant in time, resulting

¹⁸¹STAFF LEGAL BULLETIN NO. 5 (Oct. 8, 1997) <<http://www.sec.gov/rules/other/n/year2000.htm>>.

¹⁸²STAFF LEGAL BULLETIN NO. 5 (Jan. 12, 1998) <<http://www.sec.gov/rules/other/n/slbef5.htm>>.

¹⁸³Many companies forced to spend large amounts of money to fix their Year 2000 problems are reluctant to talk about their progress. Disclosing their Year 2000 remediation efforts could adversely affect future litigation and give their competitors an edge. Disclosure could also scare away investors and negatively affect the stocks value and confidence of the shareholders.

¹⁸⁴SECURITIES AND EXCHANGE COMMISSION, *Interpretation: Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers* (Aug. 4, 1998) <<http://www.sec.gov/rules/concept/33-7558.htm>>.

¹⁸⁵17 C.F.R. § 229.303 (1997); Instruction 3 to Item 303(a) provides:

The discussion and analysis shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition. This would include descriptions and amounts of . . . matters that would have an impact on future operations and [which] have not had an impact in the past. . . .

¹⁸⁶Description of Business, 17 C.F.R. § 229.101 (1997).

¹⁸⁷Daniel Mummery & Thomas Unger, *Year 2000 Bug May Create Securities Law Risks*, NAT'L L. J., Nov. 3, 1997, at B12 (quoting from Financial Accounting Standards Board Statement of Financial Accounting Standards (SFAS) No. 5).

in system malfunctions, the Financial Accounting Standards Board may require the company to disclose this fact in a note to the company's financial statements.¹⁸⁸ "[P]ublic policy favors . . . full disclosure, truthfulness and accuracy in the financial reports made by businesses to the government and to the public."¹⁸⁹ Serious legal consequences could result if material and false representations are made regarding Year 2000 compliance efforts in registration statements and company financial reports.¹⁹⁰

In addition, the Securities Act of 1933 requires every registration statement to be signed by the issuer's principal executive and financial officers and a majority of its directors.¹⁹¹ Every signatory will be liable for material misstatements and omissions to any person who acquires securities under the statement.¹⁹² Evidence of due diligence, however, can provide a defense for each signatory and director against being liable to any person acquiring securities relying on the information contained within the registration statement.¹⁹³

VIII. YEAR 2000 INSURANCE COVERAGE

If a corporation's Year 2000 remediation plan proves inadequate or untimely, the corporation may subject itself to liability which may only be mitigated by insurance coverage. The liability may stem from the plan's failure resulting in a major business interruption or shutdown. Most insurers do not insure against foreseeable risks, and the Year 2000 problem is foreseeable. As a result, some insurance companies have started inserting exclusion clauses into their policies absolving themselves from liability arising from the Year 2000 problem.¹⁹⁴ However, traditional policies or new Year 2000 policies are still available as two potential sources for insurance coverage.

¹⁸⁸Jeff Jinnett, *Year 2000 Problem: Disclosure Obligations and Impact*, J. LENDING & CREDIT RISK MGMT., Feb. 1, 1997, available in 1997 WL 9928171.

¹⁸⁹*Johnson v. World Color Press, Inc.*, 498 N.E.2d 575, 583 (Ill. 1986).

¹⁹⁰Mummery & Unger, *supra* note 187.

¹⁹¹Securities Act of 1933, § 6(a), 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a-77aa (1994)).

¹⁹²*Id.* at § 11(a).

¹⁹³Mummery & Unger, *supra* note 187.

¹⁹⁴Edwin Unsworth, *U.K. Insurers Seek to Avoid 2000 Risk*, BUS. INS. (Nov. 17, 1997) <<http://www.businessinsurance.com/article133.html>>. A model exclusionary clause may exclude:

Damage or consequential loss directly or indirectly caused by or consisting of or arising from the failure of any computer, data processing equipment or media, microchip, integrated circuit or similar device or any computer software, whether the property of the insured or not, and whether occurring before, during or after the year 2000.

Id.

A. Conventional Policies

Directors and officers insurance is an agreement to indemnify corporate directors and officers against judgments, settlements, and fines arising from negligence suits, shareholder actions, and other business-related suits.¹⁹⁵ Typical exclusions from director and officer policies include: 1) fines and penalties imposed in a criminal suit; 2) loss arising when a director or officer makes a personal profit or obtains an illegal monetary gain resulting in financial loss to the company; and 3) loss from fraudulent, dishonest or criminal acts of the director or officer.¹⁹⁶ Even if the insured corporation is grossly negligent, it may still be covered by its directors and officers insurance policy as long as the corporation attempts to remedy its Year 2000 problem.¹⁹⁷ However, if directors or officers misrepresent their Year 2000 compliance problem in their insurance application, the insurance company may decline to pay for any loss or damages stemming from a claim or suit against the director or officer.¹⁹⁸

Business interruption insurance is an agreement to protect one or more kinds of loss from interruption of an ongoing business and usually will only cover unforeseeable, unavoidable or unanticipated events.¹⁹⁹ Since the Year 2000 problem has been well-publicized for years and is within the control of the insured, it will not qualify as unforeseeable or unavoidable.

The purpose of business interruption insurance is to "compensate the insured for the lost profits or loss of earnings or to cover continuing expenses during the period of repair or restoration of property damaged or destroyed by reason of a covered peril."²⁰⁰ Most business interruption policies limit coverage to those cases where there is a complete cessation of the business.²⁰¹ A diminution in business income or mere loss of productivity is not sufficient to activate coverage under such policies.²⁰² Therefore, if suspension of operations is a requirement, Year 2000 claims will not fall under business inter-

¹⁹⁵BLACK'S LAW DICTIONARY 803 (6th ed. 1990).

¹⁹⁶*Legal Issues*, *supra* note 92, at 24.

¹⁹⁷*Id.*

¹⁹⁸*Id.*

¹⁹⁹*See supra* note 195.

²⁰⁰GEORGE JAMES COUCH, COUCH ON INSURANCE § 42:15 (2d ed. 1982).

²⁰¹Michael P. Murphy & Aidan M. McCormack, *Dissecting the Millennium Bug: An Analysis of the Insurance of Year 2000 Computer Failure Claims*, in UNDERSTANDING, PREVENTING AND LITIGATING YEAR 2000 ISSUES: WHAT EVERY LAWYER NEEDS TO KNOW NOW 369, 408 (1998).

²⁰²*Royal Indemnity v. Mikob Properties, Inc.*, 940 F. Supp. 155 (S.D. Tex. 1996)(business interruption clause will not cover a decrease in income if the business premises are still operational).

ruption coverage if computer system failures cause a slowdown or reduction in business but not a suspension of operations.²⁰³

Insurance products that typically cover business interruption are unlikely to cover Year 2000 losses, because a Year 2000 system failure is the result of a program operating exactly as it was designed to operate, and not due to unanticipated factors.²⁰⁴ This is known as the requirement of fortuity, which is implied in every insurance policy.²⁰⁵ Insurance companies will argue that the Year 2000 problem has been known from the outset.²⁰⁶ The insured's negligence may also have contributed to the system's failure.

All-risk policies cover all risks of direct physical loss or damage to the insured property from an external cause.²⁰⁷ A Year 2000 computer failure will merely reduce or suspend a company's operations without causing any physical loss.²⁰⁸ Since the physical loss requirement will not be satisfied, most Year 2000 claims will not be covered by all-risk policies.

Vendors will try to mitigate their liability using computer errors and omissions insurance (E&O), or "computer malpractice" insurance.²⁰⁹ Under a typical E&O insurance policy, the insurance company will pay "on behalf of the insured those sums which the insured becomes legally obligated to pay as damages because of a negligent act, error or omission in the performance of the insured's professional services."²¹⁰ Although such insurance has been around for a number of years, underwriters will most likely add restrictions to the insurance policies excluding damages resulting from the Year 2000 problem.²¹¹

B. Year 2000 Policies

Insurance companies have already started marketing new products that cover Year 2000 mishaps and losses with huge premiums up front. Such policies are written on a claims-made basis, focusing on what the policyholder has done

²⁰³Murphy & McCormack, *supra* note 201.

²⁰⁴Stephan G. Weil, *Spreading the Costs: Insurance Coverage and the Year/2000 Problem*, 1 YEAR/2000 J. 46, 47 (1997).

²⁰⁵Sentinel Mgmt. Co. v. New Hampshire Ins. Co., 563 N.W. 2d 296, 299 (Minn. Ct. App. 1997)(universally recognizing the implied requirement of fortuity in all-risk insurance policies).

²⁰⁶Weil, *supra* note 204.

²⁰⁷Murphy & McCormack, *supra* note 201, at 369, 404.

²⁰⁸*Id.*

²⁰⁹Reid & Brower, *supra* note 172.

²¹⁰Randy Paar & Joshua Gold, *Liability and Insurance Coverage Issues For the Year 2000 Computer Crisis*, in UNDERSTANDING, PREVENTING AND LITIGATING YEAR 2000 ISSUES: WHAT EVERY LAWYER NEEDS TO KNOW NOW, 419, 427 (1998).

²¹¹Reid & Brower, *supra* note 172.

to mitigate potential losses.²¹² Corrective Year 2000 plans and implementation progress reports are required of the insured, as well as technical and legal audits of the plan.²¹³

J&H Marsh & McLennan in connection with Lloyds of London has introduced protection for large corporations against damage and losses sustained from the Year 2000 problem.²¹⁴ The program, "2000 Secure" provides coverage for "wrongful acts," business interruption and hot-site expenses.²¹⁵ Up to \$200 million of coverage is provided by the policy, the premium of which ranges from \$1 million to \$10 million.²¹⁶

American International Group Inc. (AIG) offers Year 2000 policies under which the policyholder is almost a reinsurer.²¹⁷ For a premium of \$60 million to \$80 million, coverage can be obtained up to \$100 million.²¹⁸ If no losses are incurred, a large portion of the premium is returned. Business interruption, contingent business interruption and third-party liability coverage is offered by the AIG policy.²¹⁹

IX. FAIR USE AND COPYRIGHT ISSUES

The Year 2000 problem, at its core, will require fixing a plethora of software. Copyright issues involve who is required to repair the software and whether authorization is needed. If Year 2000 work is done by the person who regularly performs software maintenance, usually the licensor or its agent, copyright

²¹²Andrew Reidy & Robert Carter, . . . *But Insurance Policies Could Provide Protection*, NAT'L L. J., Nov. 3, 1997, at B13.

²¹³*Id.* See also Bruce Caldwell, *Year 2000: Sweating the Details—Insurer, Law Firm Team on Audits*, INFO. WK. (June 16, 1997) <<http://www.techweb.com/se/directlink/cgi?1WK19970616s0070>>. The added benefit of acquiring Year 2000 coverage is the message publicly held companies are sending to shareholders by undergoing an independent audit and obtaining insurance. *Id.* "Without the audit, stockholders may fear that a company's year 2000 problem is not being adequately addressed," says Larry McArthur, CEO of Ascent Logic Corp., a firm which performs Year 2000 compliance audits for potential clients. The audit will protect a company from shareholder suits filed when suspicion arises that a company did not disclose a problem that caused a drop in the stock's market value. *Id.*

²¹⁴Stephanie Esters, *Y2K Bug Bites E&O Policies*, NAT'L UNDERWRITER PROP. & CASUALTY-RISK & BENEFITS MGMT., Nov. 10, 1997, at 9.

²¹⁵*Id.* Hot site expenses are incurred when the insured must contract out with a Year 2000 compliant company for operations such as accounting and payroll if their own systems go down. *Id.*

²¹⁶Amy Mindell, *Insurance Might Not Cover Year-2000 Claims*, CRAIN'S DET. BUS., Sept. 28, 1998, at 12.

²¹⁷MINDA ZETLIN, *THE COMPUTER TIME BOMB* 53 (1998).

²¹⁸*Id.*

²¹⁹Keith Gallagher, *Crisis, What Crisis?: For Insurers, the Year 2000 Bug is More Than Just a Technology Issue*, CAN. INS., Feb. 1998, at 22-23.

issues will only involve ensuring that the rights to use the new Year 2000 compliant version are documented in a written contract.²²⁰

If a software licensor is required by contract to upgrade a company's system but is unable to do so, the company must perform the modifications itself, or have a third party fix the software. Most of the software used today is licensed from third parties who own the software copyright.²²¹ However, under the "work made for hire" doctrine, a corporation will be the author of a software program if the program was prepared by an employee within the scope of his or her employment.²²² If the software is a "work made for hire," the corporation will own the copyright to the software and has the freedom to modify the software itself or hire a third party to make whatever changes are necessary to become Year 2000 compliant.²²³

Consent of the software manufacturer is usually needed to upgrade or fix software.²²⁴ If consent is not given, the customer's warranty and software license may be revoked, thus limiting or excluding the manufacturer from liability.²²⁵ The licensee should then compile a written record detailing the licensor's refusal to fix the software or grant permission to the company to fix it. Such documentation will minimize liability for copyright infringement by demonstrating the licensor's bad faith.²²⁶

The dilemma for many software users is two-fold. First, if a licensor will not provide an upgrade or allow the licensee to modify the software, the licensee faces possible bankruptcy since its business will not be operable in the Year 2000. Second, when the software licensor promises to provide Year 2000 upgrades to the licensee, but the release date for the upgrades is not known, waiting for the upgrade and hoping it is Year 2000 compliant is not a viable

²²⁰Carlo F. Van den Bosch, *The Millennium Bug*, INTELL. PROP. TODAY, June 1997, at 10.

²²¹Steven Hock, *Year 2000 Copyright Maze*, YEAR/2000 J., Vol. 1, No. 2, 1997, at 20. Under the Copyright Act, computer software is considered a literary work. 17 U.S.C. § 102 (1997); Atari Games Corp. v. Nintendo of Am., Inc., 975 F.2d 832, 838 (Fed. Cir. 1992)(describing how the statutory definition of "literary works" embraces computer programs).

²²²17 U.S.C. § 101 (1997).

²²³THORNE D. HARRIS III, THE LEGAL GUIDE TO COMPUTER SOFTWARE PROTECTION: A PRACTICAL HANDBOOK ON COPYRIGHTS, TRADEMARKS, PUBLISHING, AND TRADE SECRETS 79 (1985).

²²⁴*Legal Issues*, *supra* note 92, at 19.

²²⁵Shane McLauchlin, *Law and Disorder in the Year 2000*, INC. ONLINE (Nov.18, 1997) <<http://www.inc.com/extra/special/11189721.html>>. Breach of the license agreement may even pass ownership of any Year 2000 modifications to the original licensor. *Id.*

²²⁶Hock, *supra* note 221, at 21. The licensee may also file a claim for injunctive relief against the vendor for refusal to grant access to the source code so that the licensee may modify the software to make it Year 2000 compliant. *Millennium Bug*, *supra* note 79.

alternative.²²⁷ Licensees must then balance the costs of infringing the software copyright against the costs of lost revenue and the legal costs associated with their business not being operable in the new millennium.

If a licensee decides to modify its software without permission, the licensor will assert that its exclusive right to prepare derivative works has been violated.²²⁸ A derivative work is based on one or more pre-existing works and consists of editorial revisions, annotations, elaborations or other modifications which, as a whole, represent an original work of authorship.²²⁹ Revising or modifying computer software in order to fix the Year 2000 problem will constitute the preparation of a derivative work.²³⁰ The licensee will be subject to substantial liabilities for copyright infringement for making the illegal modifications.²³¹

As a defense for licensees, the Copyright Act provides that "fair use" may be made of copyrighted work.²³² In determining whether a use is "fair," four factors are listed: 1) the purpose and character of the use, including whether the use is commercial or for nonprofit educational purposes; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion used in relation to the work as a whole; and 4) the effect of the use upon the potential market for or value of the work.²³³ Fair use allows use of a copyrighted work for purposes such as criticism, comment, news reporting, teaching, scholarship or research.²³⁴

The exclusive rights of a copyright holder are not absolute. Fair use dictates that subsequent authors, publishers and the general public may use copyrighted works in a reasonable manner without consent of copyright owners because such use is "fair use" of copyrighted materials.²³⁵ The Supreme Court has held that "[a]ny individual may reproduce a copyrighted work for a 'fair use'; the copyright owner does not possess the exclusive right to such a use."²³⁶ A strong argument can be made that modifications made to software

²²⁷Hock, *supra* note 221, at 20.

²²⁸*Id.* Among other rights, the owner of a copyright has the exclusive right to reproduce the copyrighted work in copies and to prepare derivative works based upon the copyrighted work. 17 U.S.C. § 106 (1),(2) (1997).

²²⁹17 U.S.C. § 101 (1997).

²³⁰William H. Murray & Robert E. Rosenthal, *Year 2000: The Copyright Bug*, LEGAL INTELLIGENCER, Aug. 6, 1998, at 5.

²³¹*Millennium Bug*, *supra* note 79.

²³²17 U.S.C. § 107 (1997).

²³³*Id.*

²³⁴*Id.*

²³⁵*Greenbie v. Noble*, 151 F. Supp. 45 (D.C.N.Y. 1957).

²³⁶*Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 433 (1984).

in order to become Year 2000 compliant are fair, especially if the licensor refuses to provide upgrades or allow modification.²³⁷

Asserting fair use will be the best defense available to licensees. Professor Wendy Gordon at the Western New England College School of Law argues that fair use should apply "when: 1) market failure is present; 2) transfer of the use to the defendant is socially desirable; and 3) an award of fair use would not cause substantial injury to the incentives of the plaintiff copyright owner."²³⁸ Applying fair use to the Year 2000 problem provides benefits without decreasing incentives to software authors to produce valuable works.

Professor Gordon's elements are all met when applied to the Year 2000 problem. Market failure will result come January 1, 2000, if licensors are allowed to refuse entry into the source code of their software. It is socially desirable for corporations to continue operating into the Year 2000, thus avoiding bankruptcy and thousands of employee layoffs. "There is no doubt that avoiding this Year 2000 parade of horrors benefits the public. . . ."²³⁹ Finally, copyright owners would not be injured, as licensees merely want access to the source code to perform the work themselves; they do not intend to "steal" the copyright owner's ideas or use them as a source of competition.²⁴⁰ Consequently, the rationale for copyright protection laws is not present with Year 2000 modifications and licensees should be permitted access to the source code.

The Copyright Act also grants owners that have a copy of a computer program the right to make or authorize the making of another copy or adaptation of the program provided such adaptation is created as an "essential step" in the utilization of the computer program in conjunction with the machine.²⁴¹ In the Year 2000 context, the licensee can claim that modifications to their software are an essential step necessary for the software to become Year 2000 compliant.²⁴²

²³⁷See generally Stephen M. McJohn, *Fair Use of Copyrighted Software*, 28 RUTGERS L. J. 593 (1997).

²³⁸Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600, 1614 (1982).

²³⁹David M. Nadler & Jon D. Grossman, *Year 2000 Renovation and the Fair Use Defense*, INTELL. PROP. LITIG. REP., July 8, 1998, at 14.

²⁴⁰"If a use does not adversely affect the market for the copyrighted work, then it will not affect the financial incentives to produce such work. Permitting such uses under fair use thus increases the social benefit of authorship without decreasing the incentives of authors." McJohn, *supra* note 237, at 610.

²⁴¹17 U.S.C. § 117(1) (1997).

²⁴²Hock, *supra* note 221, at 21; see also *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 269-70 (5th Cir. 1988) (holding that software license provisions prohibiting copying of software should be unenforceable when such copying is undertaken as a necessary step in the operation of the software).

Courts have held that the modification and maintenance of software by licensees is authorized by 17 U.S.C. section 117. For instance, in *Aymes v. Bonelli*, the Second Circuit held that "[b]uyers should be able to adapt a purchased program for use on the buyer's computer because without modifications, the program may work improperly, if at all. . . ." ²⁴³ Year 2000 software fixes will be construed as adaptations under 17 U.S.C. section 117 if the repairs are limited to insuring that the software accurately processes the date and time data into the twenty-first century. ²⁴⁴

However, the court in *MAI Systems Corp. v. Peak Computer, Inc.*, ²⁴⁵ held that since the plaintiff licensed its software, the defendant customers did not qualify as an owner entitled to the protection of section 117 of the Copyright Act. ²⁴⁶ If this case becomes precedent in other courts, section 117 would be unavailable to most software users because most software users enter into license agreements and are thus licensees. ²⁴⁷

The decision in *MAI System Corp.* has been criticized as not following sound reasoning. ²⁴⁸ Therefore, many scholars believe that the case decision will not be strictly adhered to. Courts would likely find that a licensee is an "owner" of a copy under section 117 unless the license agreement provided otherwise. ²⁴⁹

X. CONCLUSION

As the new millennium approaches, more and more is heard about the Year 2000 problem. With all the excitement and opportunity that such a milestone offers, there exists trepidation because of the "Y2K" bug.

The Year 2000 problem is a serious global problem. Time is short and repair is costly and time-consuming. No quick fix is available. The millennium bug will manifest itself in all areas of manufacturing, in business and in communications. It lurks in electronics controlled by embedded chips. Failure to correct the millennium bug could not only lead to bankruptcies or corporate failures, but also result in other financial disasters such as class-action lawsuits,

²⁴³*Aymes v. Bonelli*, 47 F.3d 23, 26 (2d Cir. 1995).

²⁴⁴C. Frederick Koenig III, *Re: Software Practice News: Orr's Revenge*, INTELL. PROP. TODAY, June 1998, at 6.

²⁴⁵*MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993).

²⁴⁶*Id.* at 519 n.5.

²⁴⁷William H. Murray & Robert E. Rosenthal, *Year 2000: The Copyright Bug*, LEGAL INTELLIGENCER, Aug. 6, 1998, at 5.

²⁴⁸Leonard T. Nuara et al., *Year 2000: Problem or Opportunity?*, in UNDERSTANDING, PREVENTING AND LITIGATING YEAR 2000 ISSUES: WHAT EVERY LAWYER NEEDS TO KNOW NOW 23, 53-55 (1998).

²⁴⁹David Bender, *Self-Help Options for Making Third-Party Software Y2K Compliant*, COMPUTER LAW., Aug. 1998, at 24 [citing 2 NIMMER ON COPYRIGHT § 8.08(B)(1) at 8-118.1 to 120 (1997)(arguing against a narrow interpretation of "owner" under 17 U.S.C. § 117 in *MAI Systems Corp. v. Peak Computer*)].

possible loss of insurance coverage, professional malpractice, or director and officer liability. Any firm that stores or uses data will face the Year 2000's disruptive impact.

It will be too late to enforce legal rights against parties whose services and products have proved not to be Year 2000 compliant unless action is taken now to show efforts were made to solve the problem. Companies should begin with a legal audit to assess the costs of fixing the problem and negotiate service contracts for Year 2000 remediation efforts.

"Because the Year 2000 problem is so pervasive and affects virtually every sector of our economy, if the litigation hits, it will hit like a fireball. It will hit several industries and it will come from all directions."²⁵⁰ The entire world is competing in a race against time to ward off the threatening Year 2000 nightmare. Many hurdles and controversies emerge along the way. Unless it is corrected, computer systems across the globe will fail causing a bigger headache than the worst Millennium Party hangover.

MICHAEL D. SCHINDLER

²⁵⁰*Hearings, supra* note 34, at 30.

